JAGUAR SERVICE BULLETIN

Number C.1
Section Carburetters and Fuel System
Sheet 1 (of 2)
Date June, 1960

PETROL FUMES

(2.4, 3.4 and 3.8 litre Mark 2 models)

In the event of a complaint of petrol fumes arising it should first be established under what conditions the fumes are noticeable.

Persistent fumes, irrespective of the amount of petrol in the tank, are generally traceable to a slight leakage at some part of the petrol system. Intermittent fumes, irrespective of the amount of petrol in the tank are usually caused by intermittent carburetter flooding.

If, however, the fumes are only noticeable when the tank is less than half full and when one or more windows are open, the complaint most probably arises due to fumes from the petrol cap vent being sucked into the car, in which case proceed as follows:-

Material required:

	Part No.	No. off
$\frac{1}{4}$" UNF Grease nipple (Modified)	8353	1
Plastic tube $16\frac{1}{4}$" (42 cm) long	C.8244	1

Open the petrol filler box lid and remove the petrol filler cap.

Insert a piece of lint free cloth into the petrol filler pipe to collect any foreign matter when the filler pipe is drilled.

Using a No.3 .213" (7.69 mm) drill; drill a hole 13/16" (20.64 mm) from the top edge of the filler pipe as shown in Fig.1. Tap the hole $\frac{1}{4}$" UNF. Coat the drill and tap with grease as a precautionary measure against pieces of metal falling inside the filler pipe.

Remove the cloth from the petrol filler pipe, taking care

Continued...

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to collect any foreign matter in the cloth.

Screw the modified grease nipple Part No. 8353 into the tapped hole in the petrol filler tube.

If the modified grease nipple is not available use a $\frac{1}{4}$" UNF grease nipple (Part No. C.3044/1) and grind away a little of the thread and remove the spring and ball.

Drill a $\frac{1}{4}$" (6.35 mm) hole in the floor of the petrol filler box as shown in Fig.2.

Drill a $\frac{1}{4}$" (6.35 mm) hole in the side panel above the exhaust pipes as shown in Fig.3.

Press a piece of plastic tube $16\frac{1}{4}$" (42 cm) long, Part No. C.8244, onto the grease nipple screwed into the petrol filler pipe, pass the plastic tube through the hole in the floor of the petrol filler box as shown in Fig.2. Pass the plastic tube through the hole in the side panel so that the end of the tube is facing away from the exhaust pipes as shown in Fig.3.

Blank off the two vent holes in the petrol filler cap with solder as illustrated in Fig.4.

Refit the petrol filler cap.

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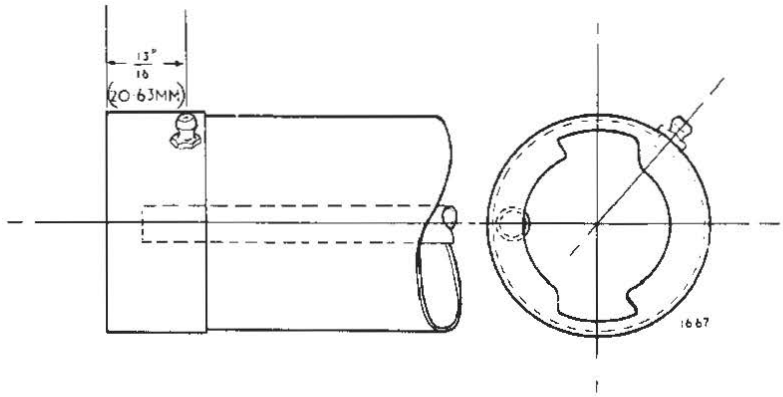

FIG 1

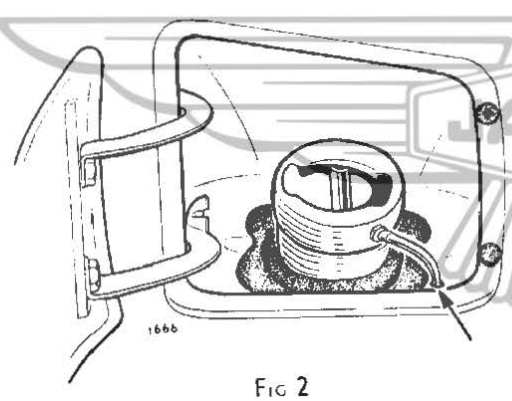

FIG 2

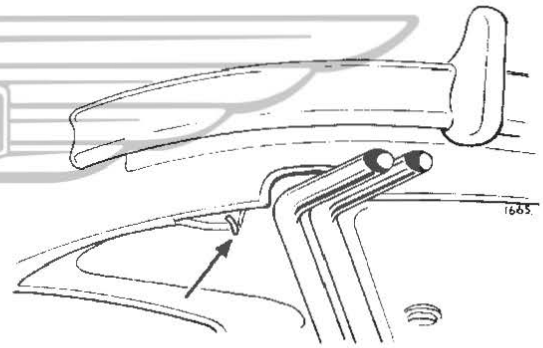

FIG 3

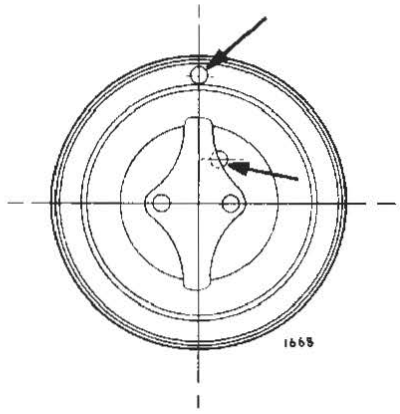

FIG 4

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JAGUAR SERVICE BULLETIN

Number C.2
Section Carburetter and Fuel System
Sheet 1 (of 1)
Date July, 1960

PETROL FILLER BREATHER - PRODUCTION MODIFICATION

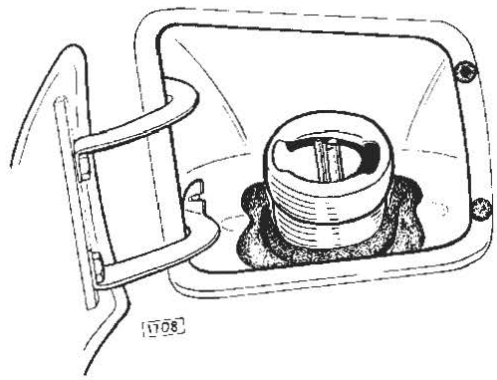
(2.4, 3.4 and 3.8 litre Mark 2 models)

A modification to overcome petrol fumes has now been incorporated in production and consists of a breather pipe in the filler neck (adjacent to the vent pipe) and a non-vented filler cap. Cars so modified can be easily identified by removing the filler cap and noting if there are two pipes in the filler neck as shown in the illustration below; previous type petrol tanks have a single vent pipe in the filler neck.

The service modification for overcoming petrol fumes as described in Service Bulletin C.1 should obviously not be carried out on cars which incorporate the above modification and if petrol fumes are present the cause should be sought elsewhere.

Furthermore, it is essential that a car without a service condition or production breather pipe is not fitted with a non-vented filler cap otherwise petrol starvation or weakness of mixture may result.

Non-vented filler caps can be identified either by the words "Non-vented" embossed on the filler cap or by noting if the hole(s) in the underside of the cap have been soldered up.



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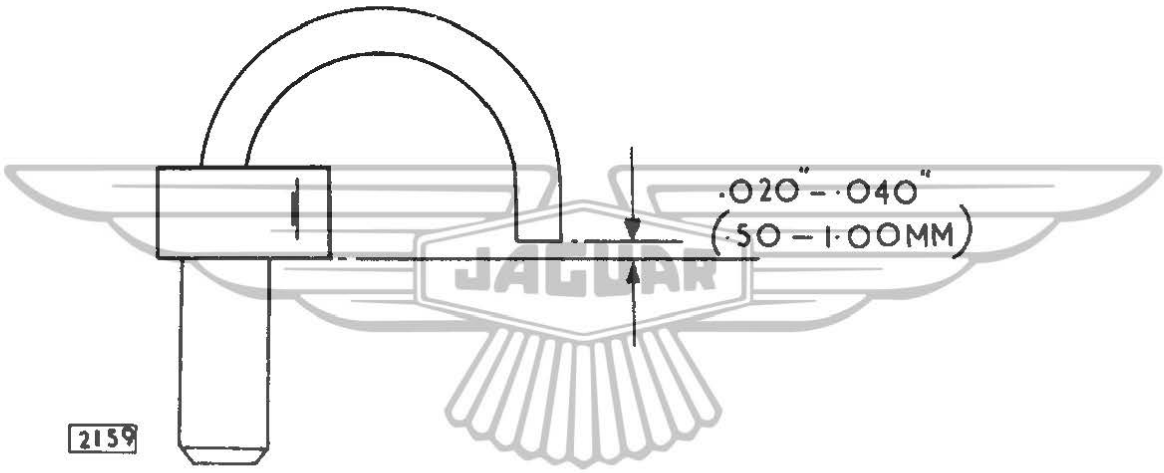

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JAGUAR SERVICE BULLETIN

Number C.4
Section Carburetter and Fuel System
Sheet 1 (of 1)
Date March, 1961

FUEL PUMP STOPPAGES

(All models fitted with S.U. Fuel Pumps)

If failure of the fuel pump is experienced early in its life it may be due to initial settling resulting in variation of the diaphragm setting, thus restricting the "throw-over" of the toggle mechanism.

Before assuming the pump is faulty, the setting of the diaphragm should be re-checked as described on page C.22 of the 2.4/3.4 litre Service Manual, except that a "four holes back" setting should be used.

The "five to six holes back" setting recommended in the Service Manual should be used when a new contact breaker is fitted.

Whilst the pump is dismantled it is also advisable, particularly in hot climates, to pierce the upper diaphragm only (that is, the one next to the rollers) as shown in the sketch overleaf.

/Continued...

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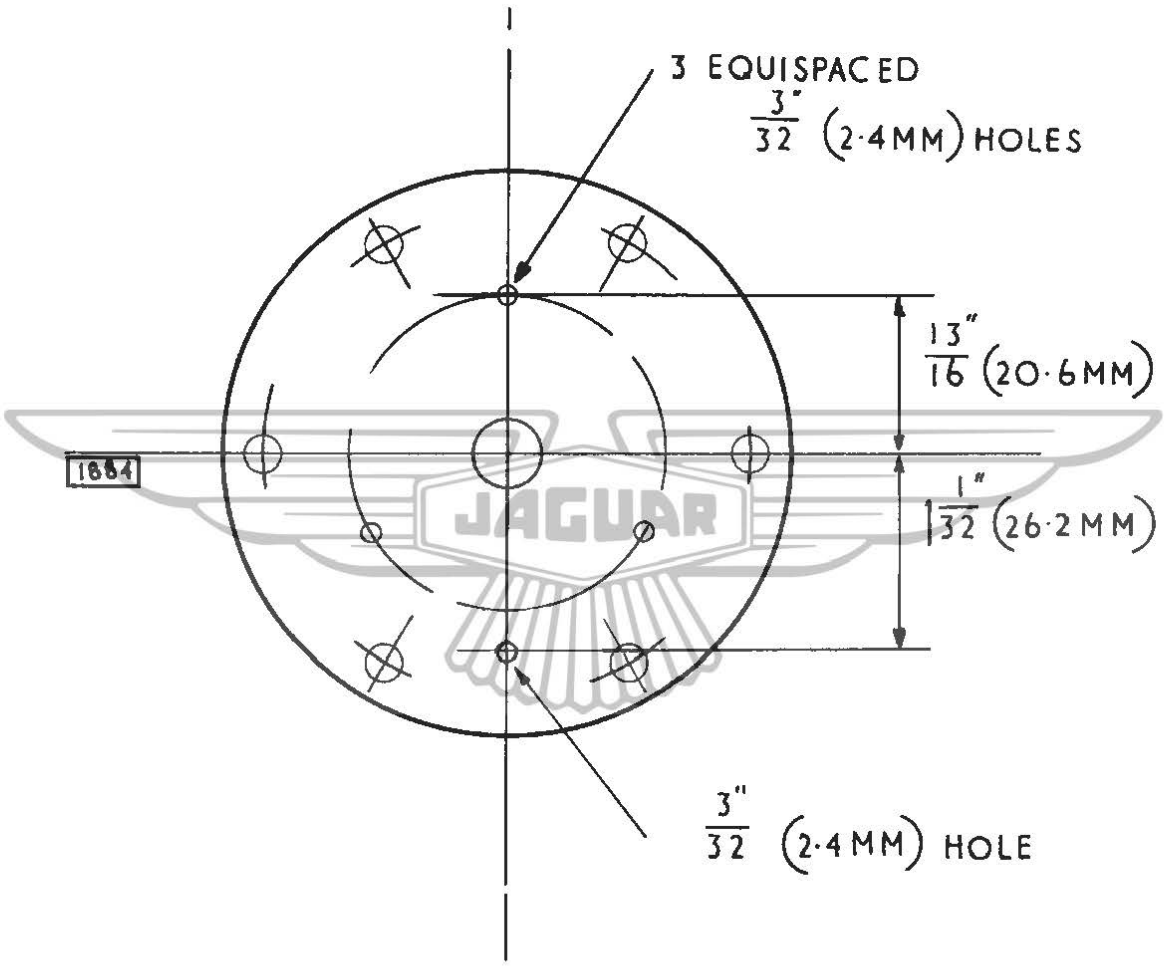

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Number C.5
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date June, 1961

SHORT BODY S.U. FUEL PUMPS

Models affected	Commencing Chassis Numbers	
	R.H. Drive	L.H. Drive
2.4 litre Mark 2	106395	126248
3.4 litre Mark 2	154030	176828
3.8 litre Mark 2	203318	216064
Mark IX	775894	793867

On cars with the above chassis number and onwards a modified fuel pump is fitted.

The new pump has a shorter coil housing than the original type. The new coil housing is approximately $2\frac{1}{4}$" (57.1 mm) in length as against $2\frac{3}{4}$" (69.8 mm) of the previous type.

The servicing of the new type of pump is the same as for the previous type except that the diaphragm setting, when new contacts are fitted, should be "seven holes back" and not "five to six" as recommended in Service Bulletin number C.4.

For the parts breakdown of the new petrol pump see Spares Bulletin number Q.20.

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SERVICE BULLETIN

Number C.6
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date October, 1961

HEAVY PETROL CONSUMPTION

(3.4 and 3.8 litre Mark 2 Models)

In cases of complaint of heavy petrol consumption on 3.4/3.8 litre Mark 2 cars fitted with paper air cleaners and having 8 to 1 compression ratio, it is recommended that C.I. Carburetter jet needles (Part Number C.19797) are fitted. It should be noted, however, that these needles must only be fitted to cars with 8 to 1 compression ratio and paper air cleaners. Also, ensure that the air cleaner is not clogged and renew if necessary.

The C.I. type carburetter needles will be introduced in production in the near future.

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JAGUAR SERVICE BULLETIN

Number C.7
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date December, 1961

FUEL TANK FILTER

Models affected		Commencing Chassis Numbers	
		R.H. Drive	L.H. Drive
"E" Type	Fixed Head Coupe	860005	885021
	Open 2-seater	850092	875386

On cars with the above chassis numbers and onwards, a modified fuel tank filter is fitted. The filter is located within a one-piece drain plug and sump tube on the underside of the petrol tank.

At intervals of 10,000 miles (16,000 km), drain the fuel from the tank into a clean container by removing the drain plug tube. It will be advantageous to carry out this operation when the tank is low in fuel. Remove the filter from the fuel pump inlet pipe by slackening the union nut and holding the filter, then unscrewing the filter.

Thoroughly clean the filter assembly in fuel, do not use cloth as particles may stick to the gauze. Refit the filter to the fuel pump inlet pipe. Refit the drain plug tube, replacing the sealing washer if damaged. Always filter the fuel before returning to the tank.

This filter is not interchangeable with that fitted previously.

Amendment to Service Bulletin Number C.6.

Include the following information on Service Bulletin C.6.

Since the issue of the above Bulletin, the C.I. carburetter jet needle has been approved for use in 9 to 1 compression 3.4 and 3.8 litre engines with paper air cleaners.

Cars with the following Engine Numbers and onwards are fitted with C.I jet needles.

3.4 litre Mark 2	KH.2524
3.8 litre Mark 2	LB.7872

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SERVICE BULLETIN

Number C.8.
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date January, 1962

FUEL TANK FILLER CAP

(Mark 1 and Mark 2 Models)

The rubber washer fitted to the fuel tank filler cap has been replaced with a cork composition washer. This washer retains the same part number (8421) and is interchangeable with that fitted previously.

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SERVICE BULLETIN

Number C.10.
Section Carburetters and Fuel System
Sheet 1 (of 1)
Date June, 1962

IMPROVED DIAPHRAGM AND OPERATION OF THE S.U. PETROL PUMP

Models affected	Commencing Chassis Numbers	
	R.H. Drive	L.H. Drive
2.4 litre Mark 2	126777	112791
3.4 litre Mark 2	178153	159939
3.8 litre Mark 2	220992	208402

On cars with the above chassis numbers and onwards, an improved fuel pump (S.U. number AUB.152) is fitted. The diaphragm incorporates a protective backing to improve reliability and prevent leakage. The diaphragm is interchangeable with the earlier type. A modified rocker arm to reduce noise from the pump is also fitted and is interchangeable with the earlier type.

Spares Bulletin number Q.42. refers.

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IMPORTANT:-

It is essential when fitting the breather pipe tube (11) that it is positioned as high as possible behind the boot aperture flange. Drill clip and secure to the body side member with a self tapping screw.

Attach the long breather pipe (13) to the nylon tube and cover the whole length with electrical type p.v.c. tubing. Insert the end of the breather tube through the rear grommet. Clip the breather pipe to the body utilising the electrical harness clips behind the boot aperture flange.

Note: Ensure that the pipe is positioned as high as possible so that only 1" to 2" of pipe protrudes below the body.

Seal the breather tube (3) with the nylon bung BD 24547 and coat with an epoxy resin, such as "Araldite".

Petrol Filler Box and Drain Tube.

Seal the full length of the petrol filler box seam (1) with dum - dum. Replace the existing petrol filler cap (2) with a non - vented type C 17566.

Examine the rubber filler box drain tube (9) for cracks or deterioration and if necessary fit a new tube Part number BD. 21930/1.

PETROL TANK

Remove the brass nut (6) securing the petrol pump cable to the petrol tank cover plate. Remove the ten setscrews, washers and stiffener plate retaining the cover plate in position. To facilitate re-assembly, mark the position of the cover plate in relation to the petrol tank as the setscrews are unequally spaced. Remove the cover plate (5) complete with petrol gauge unit taking care not to damage the float. Discard the cork washer and fit washer C 21670. Refit the cover plate (5) and stiffener plate.

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Check the petrol tank foam mounting pads for petrol fumes and if necessary replace the pads.

When refitting the petrol tank discard the hose (4) between the petrol filler box pipe and the tank and replace with C 21567.

Refitting the petrol tanks is the reverse of removal procedure.

Replace the fuel gauge cables with the white and green cable to the terminal marked 'W' and the green and black to the terminal marked 'T'. The black cable should be fitted to the earth terminal on the element housing.

NOTE: To ensure the cable connectors are correctly attached to the blade terminals on the fuel gauge tank unit slide back the insulating sleeve from the cable connector to expose the terminal end. Push home fully onto the blade and slide the insulating sleeve forward to cover the joint.

Seal the tube entrance (6) enclosing the fuel pump electrical wire, with epoxy resin.

Replace the trim panels.

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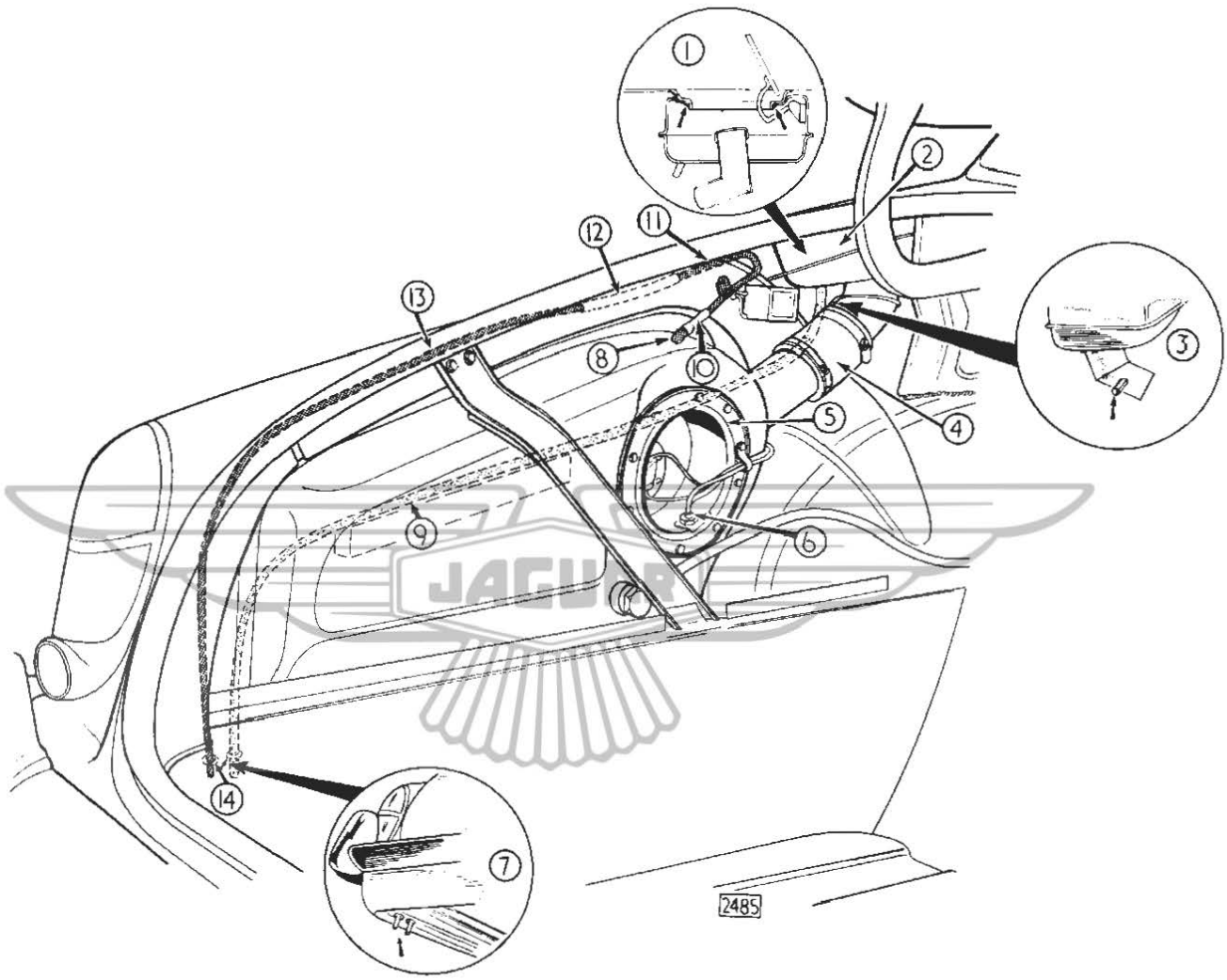

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JAGUAR SERVICE BULLETIN

Number C.13.
Section Carburetter and Fuel System

Sheet 1 (of 1)
Date March, 1963.

INTRODUCTION OF MODIFIED FUEL PUMP DIAPHRAGM

TO OVERCOME FAILURE TO OPERATE AT LOW TEMPERATURES.

(Mark 2 Models).

Cars with the AUB 152 type fuel pump (see Service Bulletin C.10) now have a modified type diaphragm (Part No. 9098 unchanged) "B" on the illustration overleaf. This diaphragm has a single neoprene leaf (Item 1) and a translucent plastic leaf (Item 3) and must be fitted with a gasket (Item 4) at each side of the diaphragm. Two gaskets will be supplied with each diaphragm.

The earlier diaphragm ("A" on illustration) has two neoprene leaves (Item 1 and 2) and a translucent plastic leaf (Item 3). This type of diaphragm had only a single gasket (Item 4) fitted.

Fuel pumps with the single layer diaphragm can be identified by X6 or subsequent numbers stamped on the top of the valve body adjacent to the flange of the coil housing.

If on cars prior to the introduction of the new diaphragm trouble is experienced with the pump failing to operate at temperatures below $-7^{o}C$ ($22^{o}F$) either the latest type pump or the new single leaf diaphragm should be fitted.

If a new diaphragm is fitted it must be adjusted in accordance with the instructions given on pages C.22 and C.23 of the Mark 2 Service Manual except that the diaphragm must be backed off (unscrewed) 7 holes and not 5-6 as stated in the manual.

Note: It may be possible to start the pump if this trouble is experienced, by leaving the ignition switch on for 2-3 minutes before starting the engine. If failure to start is still experienced, switch off the ignition for a further 2-3 minutes before trying again. (With the ignition switched on, the coil of the pump becomes energized and sufficient warmth is generated to impart flexibility to the diaphragm).

Spares Bulletin No. Q.55 refers.

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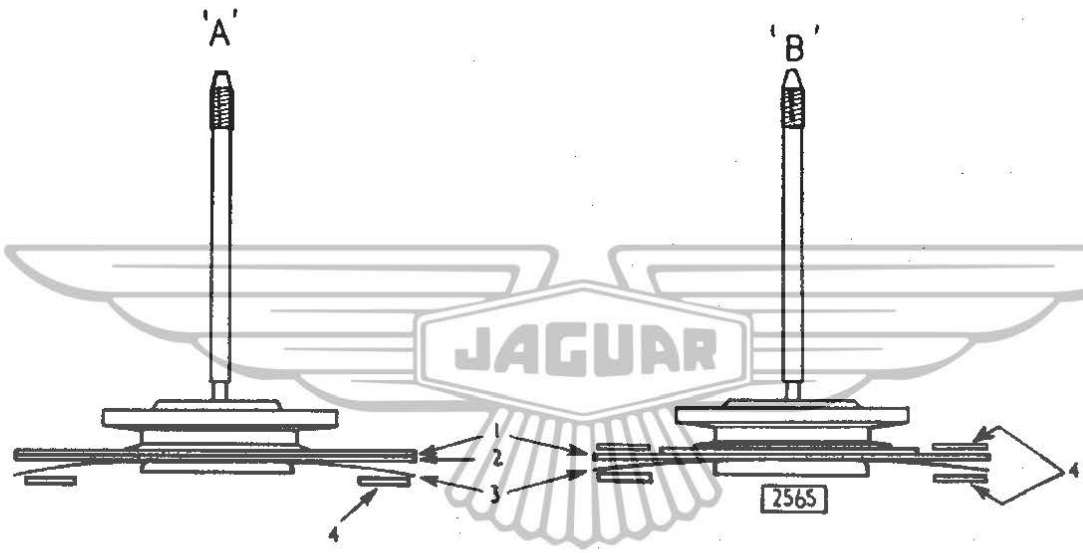

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JAGUAR SERVICE BULLETIN

Number C.15.
Section Carburetters and Fuel System.

Sheet 1 (of 1)
Date June, 1963.

INTRODUCTION OF THE "DELRIN" FLOAT CHAMBER NEEDLE.

Models affected.	Commencing Engine Numbers.
3.4 litre Mark 2	KJ. 1250
3.8 litre Mark 2	LC. 7069
'E' Type	RA. 2464
Mark 10	ZA. 9860

Commencing at the above engine numbers S.U. carburetters are fitted with a "Delrin" needle valve. This needle has a body of white plastic material and incorporates a spring loaded pin (A in illustration); the object of this pin is to overcome needle "flutter" due to engine "rock" when idling, causing slow flooding with consequent rough slow running or stalling.

In conjunction with the introduction of this new type of needle, the seat, float lever fork and float chamber lid are also modified. For the time being carburetters with the new needle valve will have a dab of black paint on the identification label attached to the float chamber lid.

Interchangeability.

(a) The new type of float chamber lid assembly is interchangeable with the previous type as a complete assembly.

(b) The new type needle and seat can be used to replace the previous type provided the original lever fork is retained.

(c) The old type needle and seat must NOT be fitted to the new type of float chamber lid (embossed AUD 2283 or 2284 on the inside).

(d) The float lever forks are NOT interchangeable and must be kept to their respective lids.

Spares Bulletin No. B.17. refers.

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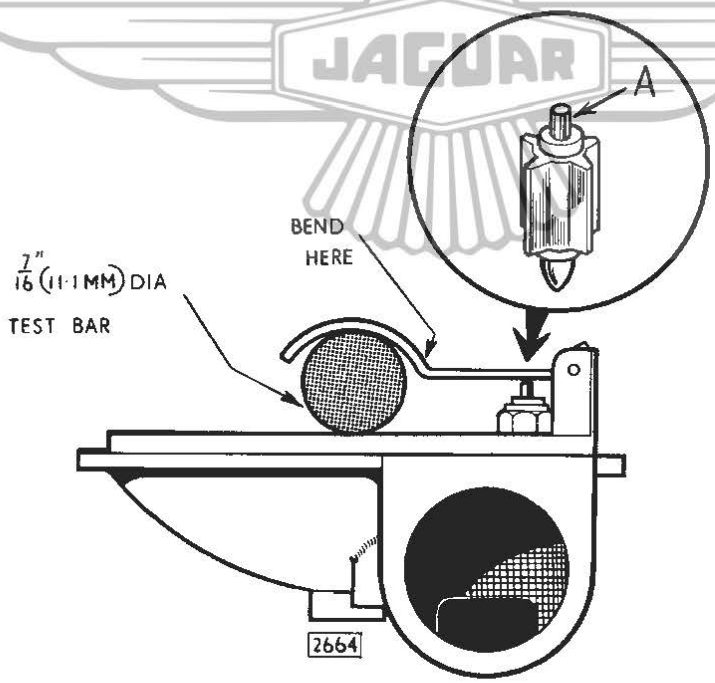

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SERVICE BULLETIN

Number C.23.
Section Carburetters and Fuel System.

Sheet 1 (of 1)
Date May, 1964.

INTRODUCTION OF NEW TYPE FUEL PUMP.

Models affected.	Commencing chassis numbers.	
	R.H.Drive.	L.H.Drive.
2.4 litre Mark 2	117610	127550
3.4 litre Mark 2	166654	179855
3.8 litre Mark 2	232676	223683

Commencing with the above chassis numbers Mark 2 models are fitted with the same type of fuel pump (AUF 301) as fitted to the 3.4 and 3.8 'S' models.

This type of fuel pump is described and illustrated in Service Bulletin C.21.

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JAGUAR SERVICE BULLETIN

Number C.25.
Section Carburetters & Fuel System.

Sheet 1 (of 1)
Date April, 1965.

CHANGING OF S.U. PETROL PUMPS.

In a great number of cases where petrol pumps have been changed to overcome fuel supply troubles, there has on investigation found to be nothing wrong with the pumps returned.

In the event of trouble with the fuel supply no attempt should be made to change the pump or to clean the internal filter until other possible causes such as blockage of the tank breather mentioned below have been investigated.

In future, no warranty claims will be met against petrol pumps returned as faulty if on examination nothing is found to be wrong with them.

PETROL STARVATION DUE TO BLOCKAGE OF PETROL TANK BREATHER.

(Mark 2 Models)

Cases have been experienced of petrol starvation due to the petrol tank breather becoming blocked with road dirt and also water entering the tank through the breather pipe.

In this event the breather pipe should be cleaned and if positioned to rear of the filler neck the pipe should be re-routed to the front and clipped to the petrol tank flange as shown in the illustration.

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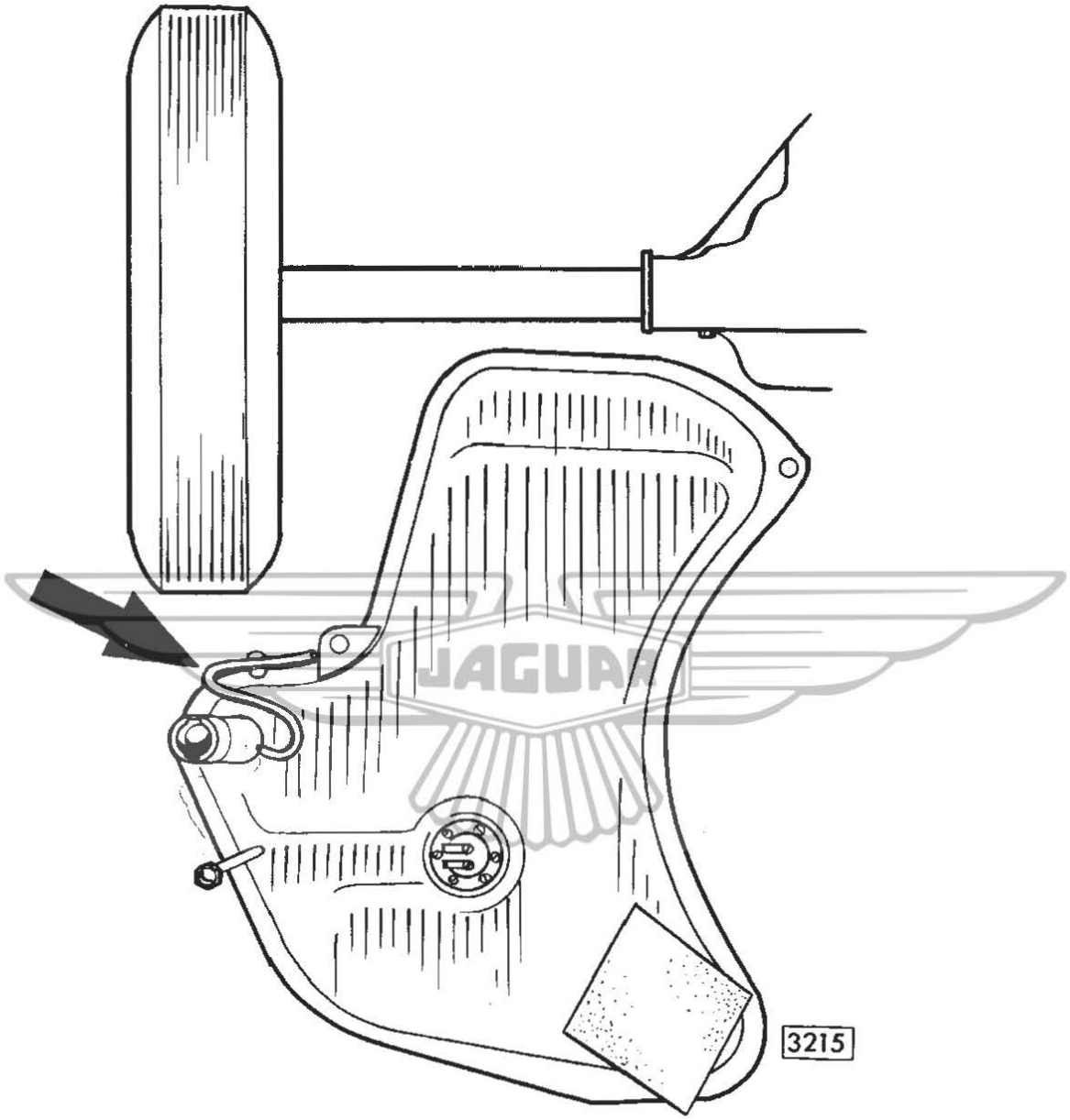

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JAGUAR SERVICE BULLETIN

Number C.26.
Section Carburetters & Fuel System.

Sheet 1 (of 1)
Date April, 1965.

INTRODUCTION OF "VITON" TIPPED FLOAT NEEDLES.

Models affected.	Commencing engine numbers.
3.4 litre Mark 2	KJ. 6767
3.8 litre Mark 2	LE. 2031
3.4 'S' Model	7B 3392
3.8 'S' Model	7B 55353
4.2 Mark 10	7D 50651
4.2 'E' Type	7E 2226

On cars with the above engine numbers and onwards Viton tipped needles are fitted to the carburetter float chambers. These needles are easily recognised as they have a black rubber tip.

The part number of the needle and seat assembly is 10532 (S.U Part number AUD 9285).

If used as replacements for the previous needle and seat they must be fitted together.

PETROL PUMP WASHERS.

Models affected.

2.4 litre Mark 2
3.4 litre Mark 2
3.8 litre Mark 2
3.4/3.8 'S'
4.2 Mark 10
4.2 'E' Type.

AUF 301 series petrol pumps are now fitted with rubber seals (Part number 10767) for the valves and filter in place of the cork washers (Part number 10187) used previously. Pumps so modified are marked B.4.

If valve trouble is experienced or if a pump with cork washers is being overhauled the latest type of rubber washers should be fitted.

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